

attached drawings are *not* to scale for reasons of clarity" (see column 3, lines 8-9, emphasis added). This means that the size of the drawings differs from actual size. Accordingly, one cannot say with certainty that the upper surface pattern (32) is thinner than the lower surface pattern (36). Therefore, applicant respectfully traverses the rejection and submits that the invention of claim 8 is not anticipated by Deroux-Dauphin et al.

With the foregoing amendment, claims 3, 5-9 and 11-17 are now pending.
Reconsideration and prompt allowance of the application is kindly requested.

ONE MONTH EXTENSION OF TIME

The Official Action, mailed on July 5, 2002, set a shortened statutory period for reply of three months, i.e., until October 5, 2002. Accordingly, applicant respectfully requests a one-month extension of time for a response. A check in the amount of \$110.00 is enclosed for the extension fee.

The Director is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1170.

Respectfully submitted,

By J - FM
James F. Boyle
Reg. No. 33,653

BOYLE, FREDRICKSON, NEWHOLM,
STEIN & GRATZ, S.C.
250 East Wisconsin Avenue, Suite 1030
Milwaukee, WI 53202
Telephone: (414) 225-9755
Facsimile: (414) 225-9753
Attorney Docket No.: 232.001

VERSION WITH MARKINGS TO SHOW CHANGES MADERECEIVED
NOV -8 2002
TECHNOLOGY CENTER 2800In the Claims

3. (Twice Amended) The printed circuit board manufacturing method according to claim 1, A method for manufacturing a printed circuit board comprising the steps of:

coating a lower surface and an upper surface of an insulative substrate respectively with a lower surface metal foil and an upper surface metal foil, the thickness of which is less than that of the lower surface metal foil;

forming an opening in the upper surface metal foil at a location corresponding to a blind via hole formation portion of the insulative substrate;

forming a blind via hole, the bottom of which is the lower surface metal foil, by emitting a laser against the blind via hole formation portion through the opening;

applying a conductor to the blind via hole; and
forming an upper surface pattern and a lower surface pattern by respectively etching the upper surface metal foil and the lower surface metal foil, wherein the upper surface and lower surface metal foil coating step includes a step of coating the upper surface and the lower surface, respectively, with an upper surface metal foil and a lower surface metal foil that have the same thickness, and a step for etching the upper surface metal foil.

5. (Amended) The printed circuit board manufacturing method according to claim 1, A method for manufacturing a printed circuit board comprising the steps of:

coating a lower surface and an upper surface of an insulative substrate respectively with a lower surface metal foil and an upper surface metal foil, the

thickness of which is less than that of the lower surface metal foil;
forming an opening in the upper surface metal foil at a location
corresponding to a blind via hole formation portion of the insulative substrate;
forming a blind via hole, the bottom of which is the lower surface metal
foil, by emitting a laser against the blind via hole formation portion through the
opening;
applying a conductor to the blind via hole; and
forming an upper surface pattern and a lower surface pattern by respectively etching
the upper surface metal foil and the lower surface metal foil, wherein the upper
surface and lower surface metal foil coating step includes a step of coating the upper
surface and the lower surface, respectively, with an upper surface metal foil and a
lower surface metal foil that have the same thickness, and a step for performing a
sandblast treatment to the upper surface metal foil so that the thickness of the upper
surface metal foil becomes less than that of the lower surface metal foil.

6. (Twice Amended) The printed circuit board manufacturing method according to claim 43, wherein the thickness of the upper surface pattern is 2 to 12 μm .

7. (Twice Amended) The printed circuit board manufacturing method according to claim 43, wherein the thickness of the lower surface pattern is 15 to 25 μm .

9. (Once Amended) The printed circuit board manufacturing method according to claim 2, A method for manufacturing a printed circuit board comprising the steps of:

coating a lower surface and an upper surface of an insulative substrate respectively with a lower surface metal, foil and an upper surface metal foil, the thickness of which is less than that of the lower surface metal foil;

forming an upper surface pattern and a lower surface pattern by respectively etching the upper surface metal foil and the lower surface metal foil, wherein the upper surface pattern has an opening exposing the upper surface of the insulative substrate at a location corresponding to a blind via hole formation portion, and the lower surface pattern covers the lower surface of the insulative substrate at a location corresponding to the blind via hole formation portion;

forming a blind via hole, the bottom of which is the lower surface pattern, by emitting a laser against the, insulative substrate through the opening; and

applying a conductor to the blind via hole, wherein the upper surface and lower surface metal foil coating step includes a step of coating the upper surface and the lower surface, respectively, with an upper surface metal foil and a lower surface metal foil that have the same thickness, and a step for etching the upper surface metal foil.

11. (Once Amended) The printed circuit board manufacturing method according to claim 2A method for manufacturing a printed circuit board comprising the steps of:

coating a lower surface and an upper surface of an insulative substrate respectively with a lower surface metal, foil and, an upper surface metal foil, the thickness of which is less than that of the lower surface metal foil;

forming an upper surface pattern and a lower surface pattern by respectively etching the upper surface metal foil and the lower surface metal foil, wherein the upper surface pattern has an opening exposing the upper surface of the

insulative substrate at a location corresponding to a blind via hole formation portion, and the lower surface pattern covers the lower surface of the insulative substrate at a location corresponding to the blind via hole formation portion;
forming a blind via hole, the bottom of which is the lower surface pattern,
by emitting a laser against the insulative substrate through the opening; and
applying a conductor to the blind via hole, wherein the upper surface and
lower surface metal foil coating step includes a step for coating the upper surface and
the lower surface, respectively, with an upper surface metal foil and a lower surface
metal foil that have the same thickness, and a step for performing a sandblast
treatment to the upper surface metal foil so that the thickness of the upper surface
metal foil becomes less than that of the lower surface metal foil.

12. (Once Amended) The printed circuit board manufacturing method according
to claim 29, wherein the thickness of the upper surface pattern is 2 to 12 μ m.

13. (Once Amended) The printed circuit board manufacturing method according
to claim 29, wherein the thickness of the lower surface pattern is 15 to 25 μ m.